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- Besides this equipment, a complete range of other products are manufactured, consult our dealers  
- Due to the constant improvements introduced to our equipments, the information contained in the present Instruction Manual may be modified without previous notice.

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INSTRUCTION MANUAL



BAND SAW STAINLESS STEEL, MOVABLE TABLE, THICKNESS GUIDE,  
BLADE 3.150 mm

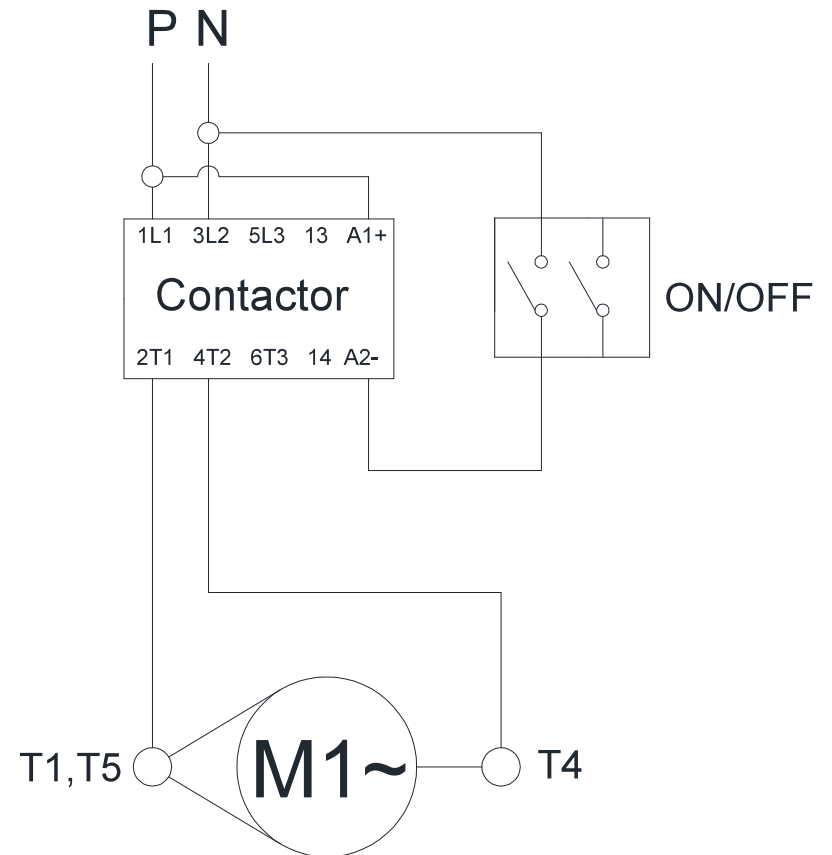
MODEL  
**SI-315HD-N**

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## 7. Electric Diagram

### Electric Network



## 6. Maintenance

Maintenance must be considered a set of procedures with the purpose to keep the equipment best operating conditions, therefore increasing the equipment life and safety.

\* Cleaning – check item 3.3 Cleaning.

\* Wiring - Check all wires regarding deteriorate conditions as well as all electric contacts (terminals) regarding tightening and corrosion.

\*Contacts – ON/OFF switch, emergency button, reset button, electronic circuits etc, check the equipment in order to assure that all components are correctly working and the equipment operation is normal.

\* Installation – make sure the installation followed item 2.1 instructions.

\* Equipment life Span: 2 years at normal day working hours

1 – Each month check:

- Check the electrical installation;
- Measure the voltage at the socket;
- Measure the working current and match it with the nominal current;
- Check the tightening of all electric terminals to avoid bad contacts;
- Check electric motor shaft clearance;
- Check the wiring for overeating, insulation failures and mechanical damages.

2 – Each three month checks

- Check electrical components such as ON/OFF switch, emergency button, reset button, electronic electric circuits, overeating, insulation failings, or mechanical damages;
- Check bearings clearances;
- Check retainers, O’rings, V’rings and other seals.

## 1. Introduction

### 1.1 Safety

If and when the equipment is not correctly used it is a potentially DANGEROUS machine. Cleaning, maintenance and any other service in the machine shall be carried out by duly trained people and with the plug off its socket.

The instructions below must be always followed to avoid accidents:

1.1.1 Read completely these instructions.

1.1.2 To avoid to risk electric shocks and damage to the equipment never use it with wet clothes or shoes and/or standing on wet floors. Do not plunge it into water nor any other liquid, do not spray water directly to the equipment.

1.1.3 When the equipment is in operation the operator shall supervise it, principally when children might be near.

1.1.4 Unplug the equipment when: It is not in use, before to clean it, before to remove or to place some accessory. before maintenance or any other service.

1.1.5 Do not operate the equipment if the cord or plug are damaged. Do not lean the cord on table edges, nor let them lie on hot surfaces.

1.1.6 When the equipment may have fall, have been damaged any way, or simply does not work, take it to Technical Assistance to check.

1.1.7 The use of accessories not recommended by the manufacturer may cause corporal injuries.

1.1.8 Keep the hands or any other object away from moving parts while the equipment is in operation, to avoid injures or damage to the equipment.

1.1.9 During operation never wear loose clothes with wide sleeves principally around the wrists.

1.1.10 Make sure the equipment voltage and the network voltage are the same, and the equipment has been solidly grounded.

1.1.11 Never adjust the Blade Guide nor the Thickness Guide with the machine running.

1.1.12 Never use steel gloves during the operation.

1.1.13 This equipment has been developed for commercial operation, it is used for instance in restaurants, fast foods, hospitals, bakeries, butchers and similar. It is not recommended to use it.

- For continuous industrial production.
- A working ambient having a corrosive or explosive atmosphere, or contaminated with water vapour, dust or gas.

**IMPORTANT**

**Make sure the cord is in perfect conditions for use. If it is not, change it for a new one in accordance with the technical specifications and safety rules.  
The substitution shall be made by a qualified professional, and shall respect the local safety norms.**

**IMPORTANT**

**This equipment must not be used by children or any persons with reduced physical or mental aptness, lack of experience or knowledge, unless they are under supervision or have received from the person responsible for safety, proper instructions on how to use the equipment.**

**IMPORTANT**

**Children shall be watched in order to avoid them to play with the equipment.**

**IMPORTANT**

**Never spray water directly on to the equipment.**

**TABLE 02**

PROBLEMS	CAUSES	SOLUTIONS
- The saw does not switch on.	- Lack of power. - Problem with the internal or external circuits of the Saw.	- Check if there is electric power. - Call Technical Assistance.
- Smoke or burn smell.	- Problem with the internal or external electric circuits of the Saw.	- Call Technical Assistance.
- Machine switch on but when product touches blade it stops or runs slowly.	- Belt slipping on pulleys. - Damaged motor. - Belt with wrong tension.	- Call Technical Assistance. - Call Technical Assistance. - Stretch the belt.
- Unusual noises.	- Damaged Bearings.	- Call Technical Assistance.
- Damaged Cord.	- Problem during transportation.	- Call Technical Assistance.

## 4.6 Maintenance

### 4.6.1 Danger

Any maintenance with the machine in working situation is dangerous.

TURN IT OFF BY PULLING THE PLUG OFF THE SOCKET DURING MAINTENANCE.

#### IMPORTANT

Always remove the plug from the socket in any emergency situation.

### 4.7 Warning

Electrical or mechanical maintenance has to be undertaken by qualified personnel.

The person in charge of maintenance has to be sure that the machine is under TOTAL SAFETY conditions when working.

## 5. Problems Analysis and Solutions

### 5.1 Problems, Causes and Solutions

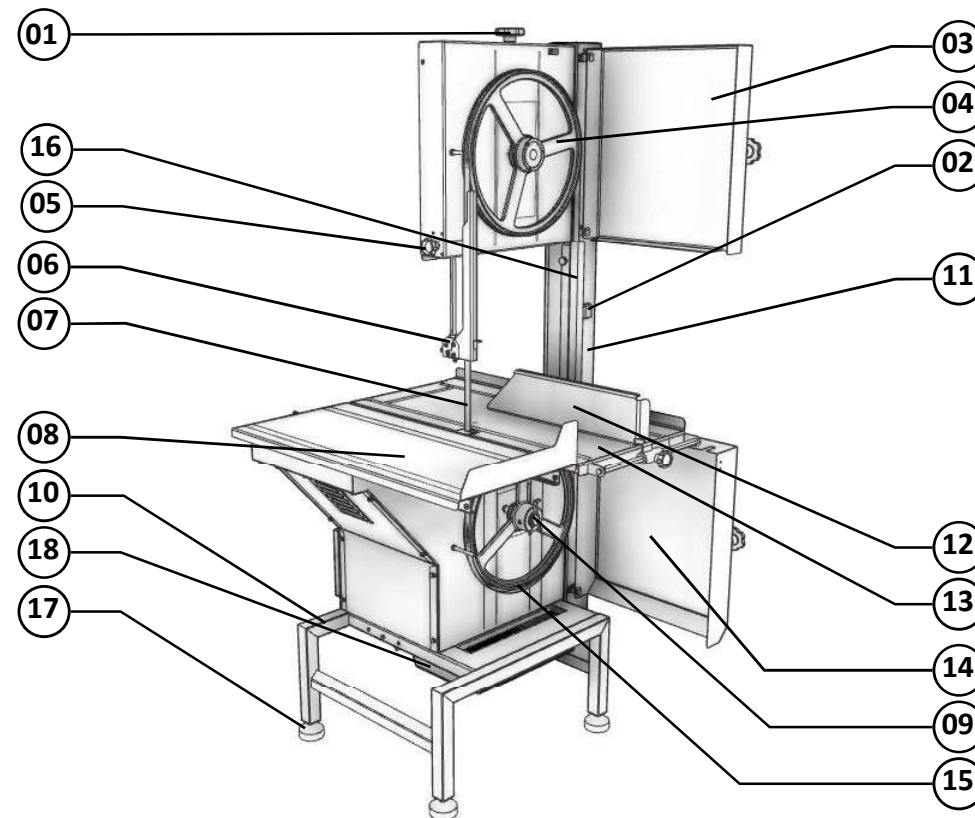
The Saws have been designed to need minimum maintenance, however, some performance failures may happen due mainly to natural worn out, caused by the use of the Saw.

If some problems arise with your Band Saw check Table - 02 below where there are detailed some possible solutions.

## 1.2 Main Components

All components are manufactured with carefully chosen raw materials in accordance with Skymssen experience and testing standards.

PICTURE 01



01 - Blade Tension Regulator Handle  
02 - ON/OFF Switch  
03 - Upper Door  
04 - Upper Wheel  
05 - Handle  
06 - Blade Guide  
07 - Blade (width 3/4")  
08 - Movable table  
09 - Wheel Staple  
10 - Rack

11 - Frame  
12 - Thickness Guide  
13 - Fixed table  
14 - Lower Door  
15 - Lower wheel  
16 - Blade Guard  
17 - Feet  
18 - Tray

## 1.3 Technical Characteristics

**TABLE 01**

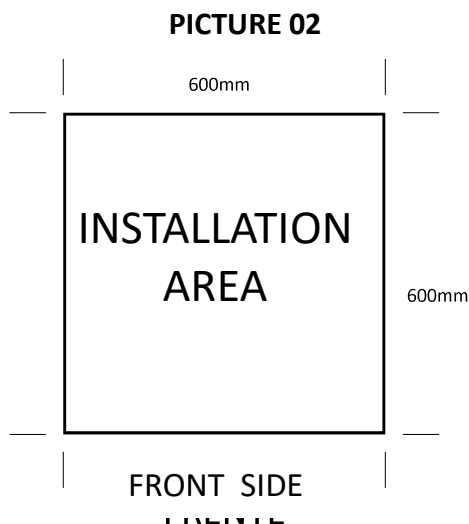
CHARACTERISTICS	UNIT	SI-315HD-N
Average production	Kg/h	Up tp 1000
Voltage	V	220
Frequency	c/s	60
Power Rating	W	1472
Height	mm	1900
Width	mm	1180
Depth	mm	1000
Net Weight	kg	136
Shipping Weight	kg	190

## 2. Installation and Pre Operation

### 2.1 Installation

#### 2.1.1 Placing the equipment

The equipment must be placed on a level and firm working surface. See below drawing the recommended area:



#### 2.1.2 Electric Installation

The cord has three wires, the green wire is for grounding. It is mandatory the three wires to be duly connected to a plug in accordance to local rules, before to start the equipment.

## 4.3 Routine Inspection

### 4.3.1 Advice

When checking the tension of the belts or chains, DO NOT insert your fingers between the belts and the pulleys and nor between the chain and the gears.

### 4.3.2 Precautions

Check the motor and sliding or turning parts of the machine in case of abnormal noises.

Check the tension of the belts and chains and replace the set when belts or chains show signs of wearing.

When checking the tension of belts or chains DO NOT insert your fingers between belts and pulleys, nor between the chains and gears.

Check protections and safety devices to make sure they are working properly.

## 4.4 Operation

### 4.4.1 Warnings

Do not use the machine with long hair that could touch any part of the machine. This might lead to a serious accident. Tie your hair up well and/or cover it with a scarf.

Only trained or skilled personnel shall operate this machine.

Never touch turning parts with your hands or any other way. NEVER operate the machine without any original safety devices under perfect conditions.

## 4.5 After Finishing The Work

### 4.5.1 Precautions

Always TURN THE MACHINE OFF before cleaning by removing the plug from the socket.

Never clean the machine unless it has come to a complete stop.

Put all the components back to their functional positions before turning the machine ON again.

Check the level of oil.

Do NOT insert your fingers in between belts and pulleys nor chains and gears.

- \* Never touch any manual commands (switch, buttons, lever) unadvisedly.
- \* If any work is to be made by two or more persons, coordination signs will have to be given for each operation step. Every step of the operation shall be taken only if a sign has been made and responded.

#### 4.1.3 Advices

- In case of power shortage, immediately switch the machine off.
- Use recommended or equivalent lubricants, oils or greases.
- Avoid mechanical shocks, once they may cause damages or bad functioning.
- Avoid water, dirt or dust contact to the mechanical and electrical components of the machine.
- DO NOT change the standard characteristics of the machine.
- DO NOT remove, tear off or maculate any safety or identification labels stuck on the machine. If any labels have been removed or are no longer legible, contact your nearest dealer for replacement.

#### 4.2 Safety Procedures and Notes before Switching the Machine ON

##### IMPORTANT

**Carefully read ALL INSTRUCTIONS of this manual before turning the machine ON. Be sure to well understand all the information contained in this manual. If you have any question contact your supervisor or your nearest Dealer.**

##### 4.2.1 Danger

An electric cable or electric wire with damaged jacket or bad insulation might cause electrical shocks as well as electrical leak. Before use, check the conditions of all wires and cables.

##### 4.2.2 Advices

Be sure to well understand all the information contained in this manual. Every operation function or procedure has to be thoroughly clear.

Before using any commands (switch, buttons, lever), be sure it is the correct one. In case of doubt, consult this manual.

##### 4.2.3 Precautions

The electric cable has to be compatible with the power required by the machine. Cables touching the floor or close to the machine need to be protected against short circuits. The oil reservoirs have to be filled until the indicated level. Check and refill if necessary.

##### IMPORTANT

**The electric connection is to be made by a qualified technician, and shall obey the local safety rules. Check the network voltage, it has to be the same as the motor voltage.**

#### 2.2 Pre Operation

Before to use this equipment all the parts to be in contact with product shall be washed with water and neutral soap, see item 3.3 Cleaning and Sanitization.

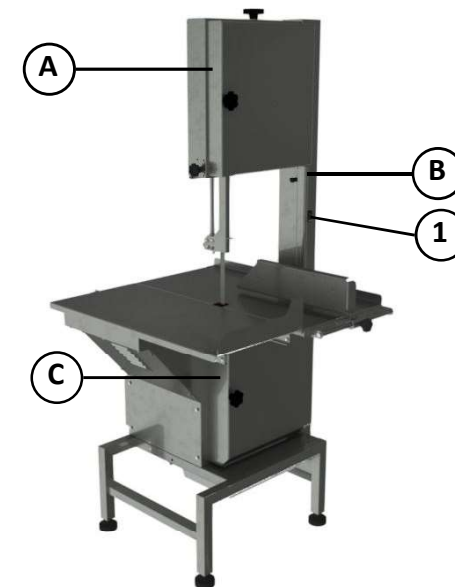
Make sure the equipment stay firm on its working place.

### 3. Operation

#### 3.1 Starting

- 1 - Make sure ALL the protections and the door are in place and the door is closed, items A. B. and C (Pic 03);
- 2 – Press the ON/OFF Switch # 01 (Pic 03) on position “I”.

**PICTURE 03**



## 3.2 Operating Process

3.2.1 Make sure the equipment is stable on its working place.

3.2.2 Adjust the Blade Guide height to meet the meat piece thickness, and not more.

3.2.3 Doors and Blade Guard

The Upper Door, the Lower Door and the Blade Guard shall be on operation position and the doors closed , as long as the equipment is in operation.

3.2.4 Thickness Guide

To obtain several slices with the same thickness, adjust the Thickness Guide as desired. Turn the Thickness Guide Handle counter clockwise loosening the Thickness Guide, and drive it to the desired thickness. Then tight back the handle.

3.2.5 Blade

The Blade shall be installed with the teeth turned toward the saw front side, and downward. To stretch the blade turn clockwise the Blade Tension Regulator Handle until it stops.

3.2.6 Blade Guide

With the saw switched OFF turn the Handle counter clockwise to loose the Blade Guide. Adjust the Blade Guide height to meet the meat piece thickness, and not more. Then tight the handle.

3.2.7 Scrapers

The saw has two scrapers, the wheel scraper and the blade scraper.

The Wheel Scraper

This scraper cleans the bone dust or the residues from the Lower Wheel during operation.

The Blade Scraper

This scraper cleans the bone dust or the residues from the blade during the operation.

3.2.8 Lower Wheel

The Lower Wheel is assembled on the lower bearing shaft and fixed by a staple. The staple shall always be placed in the shaft slit.

The lower wheel may be removed for cleaning after removing the blade (see item 3.3 Cleaning).

## 4. General Safety Practices

### IMPORTANT

**If any recommendation is not applicable to your equipment, please ignore it.**

The following safety instructions are addressed to both the operator of the machine as well as the person in charge of maintenance.

The machine has to be delivered only in perfect conditions of use by the Distributor to the user. The user shall operate the machine only after being well acquainted with the safety procedures described in the present manual. **READ THIS MANUAL WITH ATTENTION.**

### IMPORTANT

**Any change in the protection systems and safety devices will during operation, create serious risks to the operator physical integrity.**

## 4.1 Basic Operation Practices

### 4.1.1 Dangers

Some areas of the electric device have parts that are connected or have parts connected to high voltage. These parts when touched may cause severe electrical shocks or even be lethal.

Never touch manual commands such as switches, buttons, turning keys and knobs with your hands wearing wet clothes and/or wet shoes. By not following these instructions operator could be exposed to severe electrical shocks or even to a lethal situation.

### 4.1.2 Warnings

The operator has to be well familiar with the position of ON/OFF Switch to make sure the Switch is easy to be reached when necessary.

\* Before any kind of maintenance, physically remove plug from the socket.

\* Provide space for a comfortable operation thus avoiding accidents.

\* Water or oil spilled on the floor will turn it slippery and dangerous. Make sure the floor is clean and dry.

\* Before using any commands (switch, buttons, lever), be sure it is the correct one. In case of doubt, consult this manual.



### 3.4 Cautions with Stainless Steel

The Stainless Steel may present rust signs, which ARE ALWAYS CAUSED BY EXTERNAL AGENTS, especially when the cleaning or sanitization is not constant and appropriate.

The Stainless Steel resistance towards corrosion is mainly due to the presence of chrome, which in contact with oxygen allows the formation of a very thin protective coat. This protective coat is formed through the whole surface of the steel, blocking the action of external corrosive agents.

When the protective coat is broken, the corrosion process begins, being possible to avoid it by means of constant and adequate cleaning.

Cleaning must always be done immediately after using the equipment. For such end, use water, neutral soap or detergent, and clean the equipment with a soft cloth or a nylon sponge. Then rinse it with plain running water, and dry immediately with a soft cloth, this way avoiding humidity on surfaces and especially on gaps.

The rinsing and drying processes are extremely important to prevent stains and corrosion from arising.

#### **IMPORTANT**

**Acid solutions, salty solutions, disinfectants and some sterilizing solutions (hypochlorites, tetravalent ammonia salts, iodine compounds, nitric acid and others), must be AVOIDED, once they cannot remain for long in contact with the stainless steel.**

These substances attack the stainless steel due to the CHLORINE on its composition, causing corrosion spots (pitting).

Even detergents used in domestic cleaning must not remain in contact with the stainless steel longer than the necessary, being mandatory to remove it with plain water and then dry the surface completely.

Use of abrasives:

Sponges or steel wool and carbon steel brushes, besides scratching the surface and compromising the stainless steel protection, leave particles that rust and react contaminating the stainless steel. That is why such products must not be used for cleaning and sanitization. Scrapings made with sharp instruments or similar must also be avoided.

Main substances that cause stainless steel corrosion:

Dust, grease, acid solutions such as vinegar, fruit juices, etc., saltern solutions (brine), blood, detergents (except for the neutral ones), common steel particles, residue of sponges or common steel wool, and also other abrasives.

### 3.2.9 Upper Wheel

The Upper Wheel frame has its own shaft and bearings.

The Upper Wheel may be removed to clean, after the Blade has been removed (see item 3.3 Cleaning).

Before to start the Saw

- Pull totally the Movable Table toward the saw front side.
- Place the meat on the Movable Table.
- Choose the slice thickness and adjust the Thickness Guide.
- Adjust the Blade Guide height to meet the meat piece thickness.
- Take place in front of the saw, to have a frontal view of the blade.

Starting the Saw

- To start the saw press the ON/OFF Switch button 'I'.
- Hold the Movable Table with the left hand and slide the Table against the Blade slicing the meat at a constant and uniform speed.
- After cutting the slice remove it using the right hand. The slice must always be removed behind the blade to avoid the hand to touch the blade cutting side.

### 3.3 Cleaning and Sanitization

#### **IMPORTANT**

**Unlug the saw before to start Cleaning.**

When the saw must go through a complete cleaning and sanitization process:

- before to be used first time.
- After every day end of operations.
- When the saw is not going to be used for a long period of time.
- Before to start operation after a long period it has not been used.

Many parts may be removed for cleaning:

- Upper Door
- Lower Door
- Blade guard
- Fixed Table
- Fixed Table Block
- Movable Table
- Blade
- Upper Wheel

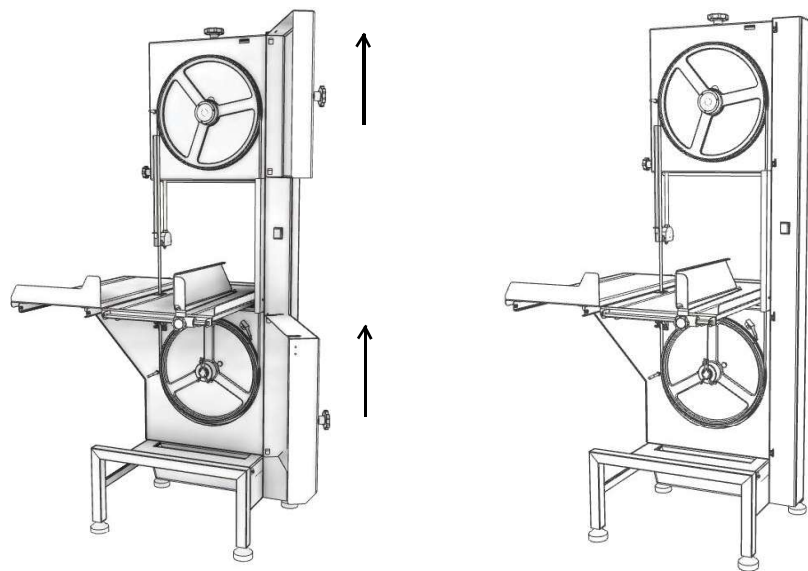
- Lower Wheel
- Wheel Scraper
- Blade Scraper
- Back Cover
- Stretcher
- Blade Tension Regulator Handle
- Tray

Follow the below instructions to remove the above mentioned parts:

- Upper Door  
Open the door, and lift it (Picture 04).

- Lower Door  
Open the door, and lift it (Picture 04).

**PICTURE 04**



- Blade Guard  
Turn counter clockwise the two handles, just enough to loose the Blade Guard, then remove the Blade Guard pulling it towards the saw front side # 01 (Pic 05).  
See Picture 05.

- Blade tension Regulator Handle  
Lift the Blade Tension Regulator Handle # 01 (Pic 16).

**PICTURE 16**



- Tray  
Pull the Tray # 01 (Pic 17) sideways out of the Rack.

**PICTURE 17**



**IMPORTANT**  
Do not spray water directly on the equipment.

Use a clean cloth or a soft brush to remove residues.  
Wash, sanitize, rinse and dry well all the parts.  
Assemble back all the parts following the dismantling reverse path checking the right placement of all the parts.

- Wheel Scraper  
Pull the Wheel Scraper # 01 (Pic 13) out of its guides.

-Blade Scraper  
Slide sideways the Blade Scraper # 02 (Pic 13) until it gets out of its guide.

**PICTURE 13**



- Back Cover  
Pull the Back Cover #01 (Pic 14) out of the lock.

**PICTURE 14**

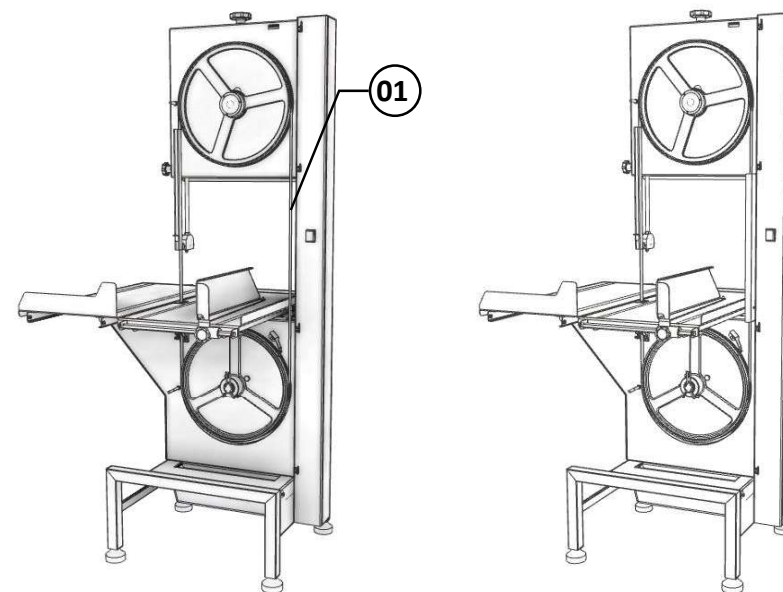


-Stretcher  
Turn the Blade Tension Regulator Handle #01 (Pic 15) counter clockwise until the Stetcher #02 (Pic 15) gets removed.

**PICTURE 15**



**PICTURE 05**



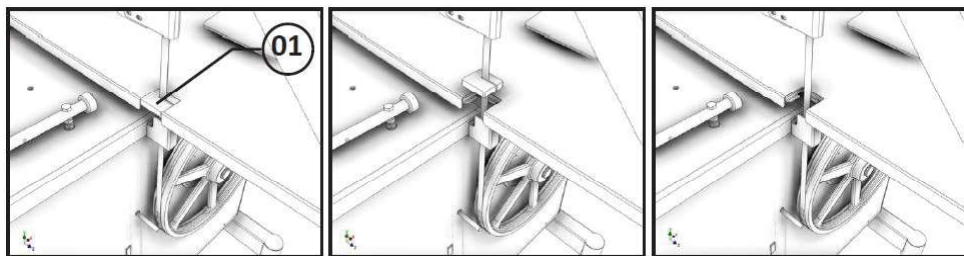
- Fixed Table  
Stand in front off the saw, then lift vertically the Fixed Table front side, until to loose the lower trigger .Then pull the Fixed Table towards the front until the table is completely removed. See Picture 06.

**PICTURE 06**



- Fixed Table Block  
Remove the Fixed Table Block # 01 (Pic 07) lifting it, see picture 07.

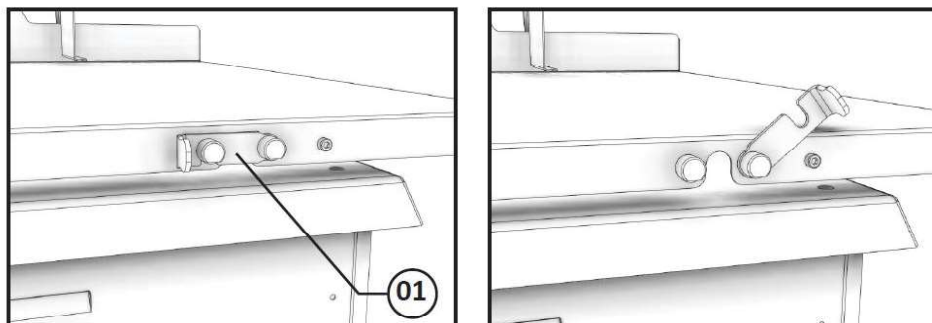
**PICTURE 07**



- Movable Table

Move the trigger # 01 (Pic 08) as to be seen at Picture 08, and slide the Movable Table #01 (Pic 09) toward the saw front side until to have the Table completely removed.

**PICTURE 08**



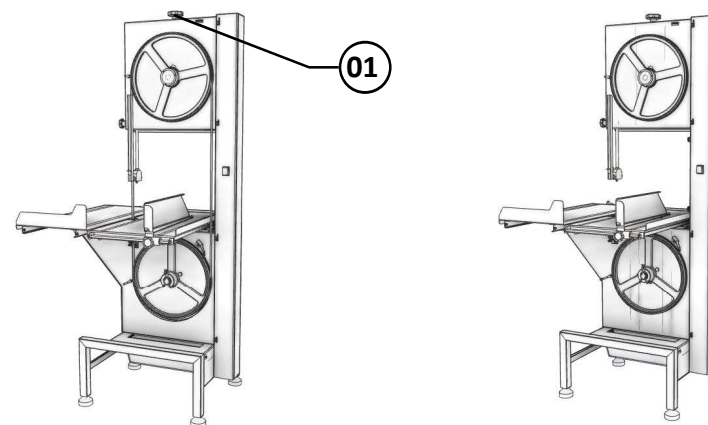
**PICTURE 09**



- Blade

Turn the Blade Tension Regulator Handle # 01 (Pic.10) counter clockwise, until the blade gets loose, to be removed.

**PICTURE 10**



- Upper wheel

Remove the blade, after, hold strongly the Upper Wheel #.01 (Pic.11), push it vertically up and then pull it towards the saw front side.

**PICTURE 11**



- Lower Wheel

Remove the Staple #.01 (Pic.12) hold strongly the Lower Wheel #02 (Pic 12) and pull it towards the saw front side, picture 12.

**PICTURE 12**

